

**PROJECT TITLE: Conservation psychology and off-trail use**

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**Objective:**

The goals of this project were to (1) evaluate trail use patterns at Wild Basin, including prevalence of off-trail use by visitors, and (2) determine the relative effectiveness of various sign wording for encouraging visitors to stay on designated trails.

**Methods:**

In three sites at Wild Basin, trail counters were used to monitor total trail traffic to see which trails are being used and by how many visitors (Fig. 1). In addition, several "social trails" were identified where visitors leave the designated trails. At those locations, we placed motion-activated wildlife cameras off-trail to get an estimate of the proportion of hikers that left the designated trails (Fig. 1).

We then examined the role of environmental psychology in trail signage. We placed temporary signs where "social trails" lead off from existing Wild Basin trails. The temporary signs were changed weekly, with each sign incorporating different environmental psychology principles that were hypothesized to discourage environmentally destructive off-trail use (Fig. 2). We compared the proportion of hikers leaving the designated trails under three sign options: (1) pre-existing signs (control), (2) a sign emphasizing that leaving designated trails violated a social norm, and (3) a sign highlighting a negative consequence for going off trail.

**Results:**

Trail use varies substantially across Wild Basin. During the 3-week study period in May-June 2014, the waterfall area experienced the greatest number of weekly visitors (average of 350 people per week) followed by the overlook area (average of 260 visitors per week). Creek Trail (adjacent to Bee Creek and east of the waterfall) experienced the least trail traffic, with approximately 140 visitors per week.

Overall, off-trail traffic was relatively low for all sites. The proportion of visitors leaving designated trails reached a maximum of 2.2% at the waterfall site. At the waterfall site, a total of 18 visitors were documented leaving the designated trails over the 3-week study period.

The results of the temporary signage were inconclusive due to the short duration of the study, but the sign emphasizing negative consequences ("Beware of snakes. Don't go off trail.") resulted in the fewest number of off-trail visitors at two of the three test sites.

### Project status:

St. Edward's University student Mia Moore presented an oral presentation on this project at the Natural Sciences Summer Research Symposium in June 2014. Although her project ended in June 2014, the trail counters remain at Wild Basin and are being used to quantify trail activity patterns throughout the trail system. Psychology students at St. Edward's University have expressed interest in building on this pilot study with a longer and more data-intensive project.



**Figure 1.** Locations of trail counters along designated trails and cameras on off-trail “social trails.”



**MANY VISITORS STAY ON THE  
TRAIL, ALLOWING THE HABITAT  
TO THRIVE.**



**PLEASE FOLLOW THEIR EXAMPLE.  
DON'T GO OFF TRAIL.**

**BEWARE OF SNAKES**



**DON'T GO OFF TRAIL.**

**Figure 2.** Signs placed at junctions of “social trails.” Left: Control signage (pre-existing signs). Middle: Sign emphasizing social norm. Right: Sign emphasizing negative consequence.